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Section 13-1

Growth and Development from Four to Six

Hand-Use Preference

Hand-use preference, or *handedness*, has always intrigued researchers. They have developed many theories about why one hand becomes dominant—more skillful and preferred. Does the choice result from genetics or environment? Since approximately 90 percent of humans are right-handed, what factors influence the other 10 percent to "choose" their left hand?

One theory is that the position of the fetus inside the uterus influences hand choice. Since the majority of fetuses are in a head-down position with their back toward their mother's left side, movement of the left arm is somewhat restricted by the mother's backbone and pelvis. This allows the right hand, which has freer movement, more activity. Since the majority of people prefer their right hands, this connection is a tempting explanation.

Another theory involves the significance of birth position. However, it does not take into account those babies who are born by cesarean delivery.

Using ultrasound technology to view the developing fetus, researchers are studying the thumb-sucking habits of infants before birth. Is there a connection between the preferred thumb that is sucked before birth and the one chosen after birth? The high rate of consistency suggests that the hand preference might be determined while the fetus is developing.

More recent research by Amar Klar at the National Cancer Institute suggests an interesting genetic cause. He found that the same gene that predisposes people to be left-handed also determines which way their hair spirals on their heads. Most people are right-handed and have a clockwise hair spiral at the top of their heads. They have one or two copies (from one or both parents) of the gene with this dominant trait. People with two recessive trait genes have a 50-50 chance of being

left-handed, and a separate 50-50 chance of their hair spiral being counterclockwise.

Class

HOW HANDEDNESS DEVELOPS AFTER BIRTH

When a baby is born, doctors check to make sure that the left and right sides are functioning equally. It is important that newborns do not show a strong difference or preference for one hand or side. If one side of a newborn functions better than the other side, this might indicate that there was a problem with prenatal brain development, or that brain damage has occurred.

As an infant develops, parents may notice that the baby seems to prefer to use one hand to make a fist or one arm to wave. Researchers who study babies have also noticed these differences. Scientists agree that an infant's use of one hand, rather than the other, for reaching and grasping is not a certain indication of the hand preference he or she will have as an adult.

A baby's tendency to turn the head to the right or left does seem to be significant. Research has shown that 60 to 70 percent of infants prefer to turn their heads to the right. Babies who prefer to turn their heads to the left are more likely to be left-handed as adults.

The tendency to prefer the right hand develops early. At four to six months, more babies will hold a rattle in their right hand longer than in their left hand. Between six and eight months, most babies prefer to reach for objects with their right hand. Although most infants seem to prefer one hand to the other, they continue to use both hands fairly regularly.

After they are 18 months of age, children who have a hand preference begin to use the preferred hand more consistently than the other hand. After

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age four, most children consistently use one of their hands for most activities.

LEFT-HANDEDNESS

Left-handedness is not simply the reverse of right-handedness. The brains of left-handed people are different in some ways from the brains of right-handed people. In left-handed people, the part of the brain that controls hand movements is better developed on the right side of the brain (which controls the left side of the body). Here are some other facts about "lefties":

- The term "south paw" originated when baseball parks were built with home plate in the west corner of the park. When a left-handed pitcher faced the batter, the pitching arm pointed to the south.
- The preference to use the left hand cannot be "cured" or "corrected." It is not wrong in the first place.
- Men are more likely to be left-handed than are women.

 If both parents are left-handed, there is a 40 percent chance that the child will also be lefthanded.

USING BOTH HANDS

Although many people are consistently righthanded or left-handed, especially when they write, some people have a combination of right-handedness and left-handedness. The amount of hand preference often depends on the task being performed. For example, some people write with their right hand, but they prefer to catch a ball with their left. More than 80 percent of adults always use the same hand when eating with a spoon, but less than 50 percent always use the same hand to stir with a spoon. Tasks that involve fine motor skills, such as writing, or that require large muscle groups to work together, such as throwing a ball, are generally the tasks that people will perform with their preferred hand. A few people are able to use both hands with equal skill. They are said to be ambidextrous.

Taking Action

Talk to people of various age groups who are left-handed. Ask them to describe the problems they have encountered as a result of their hand preference, how they adapt, and whether anyone ever insisted that they change hand preference.

Caring for Children from Four to Six

Section 13-2

Choosing Clothes for Children

Many parents feel as if their children constantly need new clothes. Existing items seem to be outgrown or worn out all too quickly. It's important to choose new clothes wisely. That involves considering a number of factors.

ASSESSING GOOD VALUE

Clothes that give good value for the money are comfortable, durable, versatile, and well made. Durable garments are ones that are strong and wear well. Versatile clothes can be worn for several types of activities. In addition, clothes that allow for some growth are a better value. Ways to get the best value for the money include:

- Try clothes on before purchase. Check for comfort, as well as fit. Knits and stretch fabrics are usually comfortable because they allow freedom of movement.
- Look for signs that clothes are well made. Sturdy fabrics can take more wear. Check for seams sewn with small stitches and fastened securely at each end to prevent unraveling. Seams that are sewn with two rows of stitching are stronger than those sewn with one row. Are areas of stress, such as knees, elbows, and pockets, reinforced?
- Check for growth features. Elastic waistbands, cuffs that can be rolled down, and adjustable straps accommodate growth. Deep hems and wide seam allowances mean that clothes can be let out as the child grows.
- Match price to use. It may be worth paying more for higher quality when clothes will be worn frequently or handed down and used again. Less expensive clothes may be a better choice for a special occasion and when a child is going through a period of rapid growth.

• Consider preworn clothes. Children's clothes are often available at garage sales or clothing exchanges. Good-looking, quality garments that have not been worn much may cost very little.

EVALUATING EASE OF CARE

Clothes that are easy and inexpensive to care for make sense for children. Checking garment care labels before purchase can help to avoid buying things that have special cleaning requirements. Look for colorfast fabrics that are treated to resist stains. Some fabrics require ironing to look neat. Choosing fabrics such as knits and terry cloth and ones with wrinkle-free finishes cuts down on care.

CHECKING SAFETY FEATURES

Children's clothes can be the cause of accidents. Choosing items carefully helps keep children safe.

- Children's sleepwear should be flameretardant. Check labels to be sure.
- Avoid clothes that are too big. Pant legs that are too long, for example, can cause the child to trip and fall.
- Consider the child's visibility. Light- and bright-colored clothing makes children easier to see. This is especially important when children will be outdoors.
- Avoid restricting the child's vision. Attached hoods may limit a child's side vision. Choose raincoats and snowsuits that have separate hats or hoods.

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MAKING SELF-DRESSING EASIER

By age four, children can handle most dressing tasks themselves. However, some features facilitate self-dressing:

- **Front openings.** Clothes that open down the front make dressing and undressing easier.
- Fronts and backs. Clothes with distinct fronts and backs can help children put on clothes correctly.

- **Fasteners.** Look for clothes that fasten in the front. Big buttons are easier for small hands to manipulate.
- Elastic waistbands. Pants and skirts with elastic waists make both dressing and trips to the bathroom quicker.

Children's clothing needs vary depending on their development and activities. The ability to choose clothes that are durable, easy to care for, safe, and easy to use is an important consumer skill. The cost of clothes adds up quickly, but there are ways to save money. Do not forget to choose clothes with "kid appeal" as well!

Taking Action

Choose a wardrobe of twenty-five garments (excluding underwear and socks) for a child age four, five, or six. Identify the climate in which the child lives. Take your list to a clothing store or look online to survey the available merchandise for cost, quality, safety, and value. Make a list of your final choices. Present your list and summarize your findings in a report.

Caring for Children from Four to Six

Section 13-2

Childhood Obesity

Today, more children are overweight than ever before. Childhood obesity is a problem that has serious health consequences that often continue into adolescence and adulthood.

CONTRIBUTING FACTORS

There are many factors that contribute to child-hood obesity. Genetics is one of the factors that cannot be changed. Studies show that children of overweight parents have a greater risk of obesity.

Fortunately, the other factors that contribute to obesity can be changed or controlled. These include:

- Lack of physical activity.
- An increase in *sedentary* activities, those that involve little physical movement.
- Poor eating habits, including choosing highcalorie foods, snacking between meals, and eating while watching television.
- Advertising that promotes foods that are high in fat, sugar, and salt.

WHAT PARENTS CAN DO

It is important that children learn behaviors that promote good health when they are young, because change becomes more difficult with age. By promoting physical activity and good nutrition, parents can help prevent obesity. In this way, parents give one of the best gifts—an increased chance of a healthy life.

Parents who are concerned about their child's weight should talk to the child's doctor. From the child's height and weight, a doctor can calculate a ratio known as *body mass index* or (BMI). This number, when compared to those of other children the same age and gender, helps determine whether a child's weight is within a healthy range. After

The Developing Child: Enrichment Activities

assessing the child's general health, the doctor can determine whether a special diet is needed.

The techniques parents of overweight children can use to encourage a healthier lifestyle also work for those whose children do not have weight issues:

- **Be supportive.** Avoid singling out a child because of a weight problem. Teach all children to find the positive aspects of others, rather than just focusing on physical appearance.
- Encourage exercise. Set limits on the amount of time children can watch television or play video games. Plan family activities that involve exercise.
- Eat meals together as a family. This provides opportunities to serve nutritious meals. In addition, focusing on positive conversation builds children's sense of self-worth. Set an example by turning off the television, eating slowly, and enjoying the food and each other.
- Do not use food as a reward or punishment.
 Children need food for growth, development, and energy. If weight problems become linked to power issues, they are much more difficult to resolve.
- Involve children in meal planning and food shopping. This helps children learn about food and gives them some input into what they will eat. Teach children to view food advertisements with a critical eye.
- Keep healthy snacks on hand. Good options include fresh fruits and vegetables, low-fat cheese and yogurt, and frozen fruit juice bars.

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THE ROLE OF CHILD CARE PROVIDERS

Many young children spend much of their time in child care settings. That makes it important for child care providers to also promote healthy habits. They can:

- **Provide healthy snacks.** Most children enjoy healthy snacks, if they are available. Do not allow unrestricted snacking.
- Encourage children to try new foods. Children may be hesitant to try unfamiliar foods. Make trying new foods fun by conducting a "taste test" with small bites of unfamiliar foods.
- Create an active environment. Provide space, opportunities, and equipment for physical activity. Include at least one highly physical activity each day.

Taking Action

Imagine that you work in a child care center. Use the space below to plan a physical activity and a healthy snack for five days. Identify the ages of the children in the program.

Ages:		
Monday		
Activity:		
Snack:		
Tuesday		
Activity:	 	
Snack:		
Wednesday		
Activity:	 	
Snack:	 	
Thursday		
Activity:		
Friday		
Activity:	 	
Cnoole		